

REMARKS/ARGUMENTS

Claims 1-11 are active in this application.

The invention as set forth in independent claim 1 is:

1. A process for the continuous preparation of polyether alcohols by reaction of alkylene oxides with H-functional starter substances in the presence of DMC catalysts, which comprises, at the beginning of the process
  - a) firstly placing initial charge material and DMC catalyst in a reactor,
  - b) metering in alkylene oxide so that the metering rate which is maintained for continuous operation of the reactor is reached in a time of from 100 to 3 000 seconds,
  - c) metering in starter substance during or after step b) so that the metering rate which is maintained for continuous operation of the reactor is reached in a time of from 5 to 500 seconds,
  - d) after the fill level in the reactor which is desired for continuous operation of the reactor has been reached, taking product off continuously from the reactor while at the same time metering in starter substance and alkylene oxides in such an amount that the fill level in the reactor remains constant and metering in DMC catalyst so that the catalyst concentration necessary for continuous operation of the reactor is maintained in the reactor.

The rationale underlying the maintained rejection in view of the disclosure in U.S. Patent No. 6,359,101 is respectfully noted as incorrect.

While, in this Action, there are more specific details of the rejection, Applicants continue to disagree.

To maintain the rejection (at the bottom of page 3), the Examiner references discussion in column 2, lines 27-29 but that section is in the background section of the invention and that simply discusses the result of the continuous addition of starter but describes nothing about the continuous removal of the product and, thus is not relevant to a continuous process as is claimed. At the bottom of page 3 in the Action, referencing column 16, lines 9-12 of the '101 patent, the Examiner relies on this disclosure for a continuous

process but again simply indicates that the PO is maintained to keep the temperature and pressure approximately in the starting conditions and says nothing with respect to a continuous process.

Where the '101 patent does describe continuous removal of product (see column 14, lines 45-50 and the Examiner's rejection at page 4) this does not describe the continuous addition of starter as required in the present claims. In particular, in col. 14 the continuous process is one using special starting substrates. In the Examples of the '101 patent, there are NO continuous processes described. Further, the '101 patent is silent about the conditions which are needed at the reaction start for a continuous process.

As discussed in the background section, when preparing polyether alcohols in a continuous operation such as that claimed, a number of problems with heat, poisoning and others (see pages 1-2 of the present application). The inventors have discovered that when the production occurs as is provided in the claims, the start-up of continuous reactors for the preparation of polyether alcohols by addition of alkylene oxides onto H-functional starter substances in such a way that steady-state operation of the reactor can be established quickly without deactivation of the catalyst occurring, even when using low catalyst concentrations (see pages 2-3 of the specification).

Further, as discussed on page 4 of the application: When the times to reach the metering rates in steps b) and c) are less than those specified, damage to the catalyst occurs, probably because of the high temperatures caused by the rapid metered addition and consequently spontaneous reaction of the propylene oxide. When the times specified are exceeded, it takes a long time for conditions in the reactor under which the target product is produced in a consistent quality to be reached, so that out-of-specification product is obtained in the start-up phase. The time until constant conditions have been reached in the reactor is

usually reported as the number of residence times required to reach steady-state operation. The residence time is the quotient of reaction volume (l) and feed rate (in l/s). The residence time thus corresponds to the mean time for which the molecules are present in the reactor. In the case of reactions in which the volume does not remain constant, the residence time is based on the conditions at the inlet of the reactor.

The Examples and Comparative Examples in the present application show that it would not have been obvious to select the conditions as defined in the claims (see Claim 1 reproduced above).

At least on this basis, the claims cannot be anticipated by the '101 patent.

The rejection also relies on the theory of inherency with respect to the metering times required in the claims, e.g., "inherently taught by the '101 patent" (see page 4 of the Official Action). However, the Examiner has provided no proof of this. Rather, the Examiner is using Applicants' disclosure against them. As noted by the court in *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323 (CCPA 1981), the mere fact that a certain thing may result from a given set of circumstances is not sufficient to prove inherency. Inherency may not be established by probabilities or possibilities. Something that is inherent must inevitably be the result each and every time.

It is by now well settled that the burden of establishing a *prima facie* case of anticipation resides with the Patent and Trademark Office. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984), quoting *In re Warner*, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967).

As noted by the Board of Patent Appeals and Interferences in *Ex parte Skinner*, 2 USPQ2d 1788, before an Examiner can switch the burden of proof of showing non-inherency to the applicant, the Examiner must provide some evidence or scientific reasoning to establish

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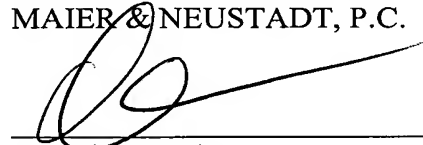
the reasonableness of the Examiner's belief that the functional limitation is an inherent characteristic of the prior art. In this case, the Examiner has provided no such evidence.

Instead, as described above, the '101 patent does not describe the conditions for the reaction start for a continuous process.

Withdrawal of the rejection and a Notice of Allowance are requested.

Respectfully submitted,

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